DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-010252
Date Inspected: 17-Nov-2009

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island

OSM Arrival Time: 645
OSM Departure Time: 1845
Location: Shanghai, China

CWI Name:
CWI Present: ☐ Yes ☑ No

Inspected CWI report:	☐ Yes	☐ No	☑ N/A	**Rod Oven in Use:**	☐ Yes	☐ No	☑ N/A
Electrode to specification:	☐ Yes	☐ No	☑ N/A	**Weld Procedures Followed:**	☐ Yes	☐ No	☑ N/A
Qualified Welders:	☐ Yes	☐ No	☑ N/A	**Verified Joint Fit-up:**	☐ Yes	☐ No	☑ N/A
Approved Drawings:	☐ Yes	☐ No	☑ N/A	**Approved WPS:**	☐ Yes	☐ No	☑ N/A
				Delayed / Cancelled:	☐ Yes	☐ No	☑ N/A

Bridge No: 34-0006
Component: OBG Trail Assembly

Summary of Items Observed:

On this date Caltrans OSM Quality Assurance (QA) Inspector, S. Manjunath. Math. was present during the time noted above for observations relative to the work being performed.

This QA Inspector randomly observed the following work in progress:

Orthotropic Box Girder (OBG) Assembly Area

Segment 5AE

This Quality Assurance (QA) Inspector witnessed final tension verification for Corner Assembly Back to Back Angles, X37B and Road Barriers Angles Bolts between PP 29, PP 30 and PP 31 for Segment 5AE. Inspected 10% on a random basis and found the tension to be in general compliance.

Bolt sizes used were M22 x 55 RC Set# DHGM220001 and final torque required is 443 N-m.

Bolt sizes used were M22 x 85 RC Set# DHGM220013 and final torque required is 433 N-m.

Bolt sizes used were M22 x 120 RC Set# DHGM220053 and final torque required is 440 N-m.

Bolt sizes used were M24 x 60 RC Set# DHGM240014 and final torque required is 567 N-m.

Bolt sizes used were M24 x 65 RC Set# DHGM240008 and final torque required is 547 N-m.

Bolt sizes used were M24 x 80 RC Set# DHGM240004 and final torque required is 570 N-m.

Manual Torque wrench is been used with Sr. No. XO2 - 675.

Note: At Cross Beam Side PP 29 to 29.5 Bolts for Back to Back Angle, X37B and Road Barrier Brackets bolts not installed due to design modification and At Cross Beam Side PP 29.5 to 30 Bolts for Back to Back Angle, X37B and Road Barrier Brackets bolts not installed due to design modification thus not offered Inspection by ZPMC.

Segment 5BE

This Quality Assurance (QA) Inspector witnessed final tension verification for Corner Assembly Back to Back Angles, X37B and Road Barriers Angles Bolts between PP 32, PP 33 and PP 34 for Segment 5BE. Inspected 10% on a random basis and found the tension to be in general compliance.

Bolt sizes used were M22 x 55 RC Set# DHGM220001 and final torque required is 443 N-m.

Bolt sizes used were M22 x 85 RC Set# DHGM220013 and final torque required is 433 N-m.

Bolt sizes used were M22 x 120 RC Set# DHGM220053 and final torque required is 440 N-m.

Bolt sizes used were M24 x 60 RC Set# DHGM240014 and final torque required is 567 N-m.

Bolt sizes used were M24 x 65 RC Set# DHGM240008 and final torque required is 547 N-m.

Bolt sizes used were M24 x 80 RC Set# DHGM240004 and final torque required is 570 N-m.

Manual Torque wrench is been used with Sr. No. XO2 - 675.

Note: At Cross Beam Side PP 31.5 to 32 M22x120 bolts not installed for Road Barrier Bracket due to cope hole grinding, blasting and painting activities. At Bike Path Side PP 31.5 to 32 M22x120 bolts not installed for Road Barrier Bracket due to cope hole grinding, blasting and painting activities.

Segment 5CE

This Quality Assurance (QA) Inspector witnessed final tension verification for Corner Assembly Back to Back Angles, X37B and Road Barriers Angles Bolts between PP 35 and PP 36 for Segment 5CE. Inspected 10% on a random basis and found the tension to be in general compliance.

Bolt sizes used were M22 x 55 RC Set# DHGM220001 and final torque required is 443 N-m.

Bolt sizes used were M22 x 85 RC Set# DHGM220013 and final torque required is 433 N-m.

Bolt sizes used were M22 x 120 RC Set# DHGM220053 and final torque required is 440 N-m.

Bolt sizes used were M24 x 60 RC Set# DHGM240014 and final torque required is 567 N-m.

Bolt sizes used were M24 x 65 RC Set# DHGM240008 and final torque required is 547 N-m.

Bolt sizes used were M24 x 80 RC Set# DHGM240004 and final torque required is 570 N-m.

Manual Torque wrench is been used with Sr. No. XO2 - 675.

Note: ZPMC did not offer inspection at Cross Beam Side PP 34 to 35 as Road Barrier Brackets not installed due to blasting and painting to Deck Panel Corner Assembly I Rib is balance.

Segment 6AW at PP 37

This QA Inspector measured and recorded the distortion for Deck Panel to Deck Panel Diaphragm for all the 39 U-Ribs and noticed 16.1mm distortion between U-Rib no. 27 and 28 when measured from west side. Prepared the report and submitted to Engineer for reviewing. U-Rib numbering 1(one) start from Counter Weight side towards Cross Beam side 39(Thirty nine). Submitted the report to Engineer for review.

Segment 6AW at PP 39

This QA Inspector measured and recorded the distortion for Deck Panel to Deck Panel Diaphragm for all the 39 U-Ribs and noticed 11mm distortion between U-Rib no. 28 and 29 when measured from west side. Prepared the report and submitted to Engineer for reviewing. U-Rib numbering 1(one) start from Counter Weight side towards Cross Beam side 39(Thirty nine). Submitted the report to Engineer for review.

Segment 6AW at PP 40

This QA Inspector measured and recorded the distortion for Deck Panel to Deck Panel Diaphragm for all the 39 U-Ribs and noticed 16mm distortion between U-Rib no. 13 and 14 when measured from west side. Prepared the report and submitted to Engineer for reviewing. U-Rib numbering 1(one) start from Counter Weight side towards Cross Beam side 39(Thirty nine). Submitted the report to Engineer for review.

Segment 6BW at PP 41

This QA Inspector measured and recorded the distortion for Deck Panel to Deck Panel Diaphragm for all the 39 U-Ribs and noticed 10mm distortion between U-Rib no. 35 and 36 when measured from west side. Prepared the report and submitted to Engineer for reviewing. U-Rib numbering 1(one) start from Counter Weight side towards Cross Beam side 39(Thirty nine). Submitted the report to Engineer for review.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

WELDING INSPECTION REPORT

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Summary of Conversations:

No relevant conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact , who represents the Office of Structural Materials for your project.

Inspected By:	Math,Manjunath	Quality Assurance Inspector
Reviewed By:	Carreon,Albert	QA Reviewer